(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 25 March 2004 (25.03.2004)

PCT

(10) International Publication Number WO 2004/024869 A2

(51) International Patent Classification7:

C12N

(74) Agent: JACKSON, David, A.; Klauber & Jackson, 411 Hackensack Avenue, Hackensack, NJ 07601 (US).

(21) International Application Number:

PCT/US2003/028676

(22) International Filing Date:

12 September 2003 (12.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/410,048

12 September 2002 (12.09.2002)

(71) Applicant (for all designated States except US): SEAT-TLE GENETICS, INC. [US/US]; 21823 30th Drive, S.E., Bothwell, WA 98021 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PETROZIELLO, Joseph, P. [US/US]; 6700 NE 182nd Street, Apt. A307, Kenmore, WA 98028 (US). LAW, Che-Leung [US/US]; 18834 Freemont Avenue North, Shoreline, WA 98133 (US). YAMANE, Andrew, K. [US/US]; 12341 36th Avenue NE, Seattle, WA 98125 (US). WAHL, Alan, F. [US/US]; 6150 East Mercer Way, Mercer Island, WA 98040 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CANCER ASSOCIATED ANTIGENS, SGA-56M AND SGA-56MV, AND USES THEREOF

(57) Abstract: The present invention relates to nucleic and amino acid sequences of SGA-56M and variants thereof. An exemplary variant of SGA-56M is SGA-56Mv. SGA-56M and SGA-56Mv are differentially expressed in cancer tissues and transformed cell lines. In particular, these genes are expressed at elevated levels in breast cancer and lung cancer tissues and cell lines. The present invention is also directed to methods for diagnosing a cancer in a subject, determining the prognosis of a cancer patient, and/or monitoring the efficacy of a treatment regimen for a cancer patient. The present invention further provides methods for screening and identifying modulators (e.g., antagonists or agonists) of SGA-56M and/or SGA-56Mv expression and/or activity. Antagonists identified using the methods of the invention are useful for the treatment of cancer patients. Also encompassed by the present invention are compositions including nucleic and/or amino acid sequences of SGA-56M and SGA-56Mv or SGA-56M/SGA-56Mv modulators and a pharmaceutically acceptable carrier. Such compositions may be used to advantage to treat a subject with a cancer to ameliorate the symptoms of the cancer or reduce the cancer cell burden in the subject. These compositions may also be utilized to prevent or delay the onset of a cancer in a subject exhibiting a predisposition to developing a cancer.